Chapter 14
Organizational Structure

Chapter 15
Environment, Strategy, and Technology

Chapter 16
Organizational Change, Development, and Innovation



Part 4

The Total Organization





Chapter 14

Organizational Structure

Learning Objectives

After reading Chapter 14, you should be able to:

1. Define *organizational structure* and explain how it corresponds to division of labour.
2. Discuss the relative merits of various forms of departmentation.
3. Review the more basic and more elaborate means of achieving organizational coordination.
4. Discuss the nature and consequences of traditional structural characteristics.
5. Explain the distinction between organic and mechanistic structures.
6. Discuss the emergence of network, virtual, modular, and boundaryless organizations.
7. Review important considerations concerning downsizing.
8. Identify symptoms of structural problems in organizations.

W.L. Gore & Associates, Inc.

Unless you are an avid hiker or camper, you may not be familiar with W.L. Gore & Associates, Inc. The firm, based in Newark, Delaware, is best known for the Gore-Tex brand fabric, a breathable, waterproof fabric laminate found in premium outdoor clothing and space suits. However, Gore also produces other high-tech products, including electrical cable, vascular grafts and other medical products, and a wide variety of environmental filters and other industrial products. Founded in 1958 by ex-Dupont R&D chemist Bill Gore in the basement of his home, the firm has 45 plants worldwide. Its annual revenue is around $1.2 billion, and it has posted good profits for over 30 years straight.

Gore's 6,000 "associates" (not employees) operate under what the company describes as unmanagement. There are no titles, no bosses, and no budgets. By extension, there is no hierarchy or formal chain of command, no predetermined channels of communication, and no fixed organizational structure. People are not hired for a job, but rather, for a commitment. How does any work get done?

The company has a unique, flat structure that it calls a lattice system in which an associate assumes responsibility for developing a new product. Then, he or she has to recruit volunteers from other parts of the company to form a team. This team could eventually become a plant, which would be divided into smaller teams that choose their own leaders. Gore intentionally limits plant size to no more than around 200 associates to foster good



W.L. Gore & Associates Inc. has a unique, flat organizational structure called a lattice system, which fosters a creative and energizing work environment and continual innovation.

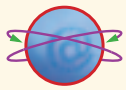
communication. Each plant is self-sufficient with its own manufacturing, finance, and research and development contained within the facility.

Instead of bosses, the company has sponsors. New hires are assigned to sponsors who help them understand their commitments and what is required to be successful in those commitments. Another important responsibility of a sponsor is to be a "positive advocate" for new associates. This involves gathering information and feedback about a new associate's personal development and presenting it to a compensation committee. The information is then used to rank all associates within a functional area and to determine their compensation.

How did Gore come up with such a unique structure? The structure is a result of the core values that founder Bill Gore instituted in order to develop a creative and energizing work environment. The key to Gore's success has been continual innovation, which is due, in large part, to the organization's cultural values of fairness, continuous learning, commitment, and consultation.

The lattice structure supports and reinforces the culture in a number of important ways. For example, because there are no formal channels of communication, associates must communicate and consult with each other. In addition, because associates do not have narrowly defined job titles that lock them into specific tasks, they are more likely to take on new and challenging assignments. Thus, the structure helps to foster communication and consultation among associates and in the development of new ideas and commitments.

What is it like to work in a lattice organizational structure, compared with a more traditional hierarchical structure? According to a human resources leader at Gore, "Issuing orders, writing rules, and releasing memos is much easier than trying to obtain buy-in from a group, selling another associate on a new idea, or encouraging and motivating an individual or a team."



W.L. Gore & Associates, Inc.
www. gore.com

The challenges of the lattice system seem to have made a difference. W.L. Gore & Associates, Inc. have continued to grow and prosper, thanks to their unique structure that fosters a creative work environment and continual innovation. But how do Gore employees feel about working in a "lattice" organizational structure? It appears that the lattice system also fosters positive attitudes. Gore has been ranked in the top 10 on *Fortune* magazine's 100 Best Companies to Work for in America![1]

Why is W.L. Gore & Associates, Inc. organized and structured the way it is? And how does its unique organizational structure affect Gore employees and the overall effectiveness of the organization? These are the kinds of questions that we shall attempt to answer in this chapter and the next.

First, we will define organizational structure and discuss the methods for dividing labour and forming departments. Then we will consider some methods for coordinating labour as well as traditional structural characteristics and the relationship between size and structure. Finally, we will review some signals of structural problems.

What Is Organizational Structure?

In previous chapters, we were concerned primarily with the bits and pieces that make up organizations. First, we analyzed organizational behaviour from the standpoint of the individual member—how his or her learning, personality, perception, attitudes, and motivation affect behaviour. Then we shifted our analysis to groups and to some of the processes that occur in organizations, including communication, leadership, and decision making. In this chapter we adopt yet another level of analysis by looking at the organization as a whole. Our primary interest is the causes and consequences of organizational structure.

Shortly, we will discuss organizational structure in detail. For now, it is enough to know that it broadly refers to how an organization's individuals and groups are *put together* or *organized* to accomplish work. This is an important issue. An organization could have well-motivated individual members and properly led groups and still fail to fulfill its potential because of the way their efforts are divided and coordinated.

In Chapter 1, we defined organizations as social inventions for accomplishing common goals through group effort. In this chapter and the next, we shall see that organizational structure intervenes between goals and organizational accomplishments and thus influences organizational effectiveness. Among other things, structure affects how effectively and efficiently group effort is coordinated.

To achieve its goals, an organization has to do two very basic things: *divide* labour among its members and then *coordinate* what has been divided. For example, consider how a university divides its labour: some members teach, some run the graduate programs, some take care of accounts, and some handle registration. It is simply unlikely that anyone could do *all* these things well. Furthermore, within each of these subunits, labour would be further divided. For example, the registrar's office would include a director, secretaries, clerks, and so on. With all this division, some coordination is obviously necessary.

We can conclude that **organizational structure** is the manner in which an organization divides its labour into specific tasks and achieves coordination among these tasks.[2]

Organizational structure. The manner in which an organization divides its labour into specific tasks and achieves coordination among these tasks.

The Division and Coordination of Labour

Labour must be divided because individuals have physical and intellectual limitations. *Everyone* cannot do *everything;* even if this were possible, tremendous confusion and inefficiency would result. There are two basic dimensions to the division of labour: a vertical dimension and a horizontal dimension. Once labour is divided, it must be coordinated to achieve organizational effectiveness.

Vertical Division of Labour

The vertical division of labour is concerned primarily with apportioning authority for planning and decision making—who gets to tell whom what to do? As we see in Exhibit 14.1, in a manufacturing firm, the vertical division of labour is usually signified by titles such as president, manager, and supervisor. In a university, it might be denoted by titles such as president, dean, and chairperson. Organizations differ greatly in the extent to which labour is divided vertically. For example, the Canadian Army has eighteen levels of command ranging from full generals to privates. Wal-Mart has five levels between its CEO and its store managers. On the other hand, an automobile dealership might have only two or three levels, and a university would usually fall between the extremes. Separate departments, units, or functions *within* an organization will also often vary in the extent to which they vertically divide labour. A production unit might have several levels of management, ranging from supervisor to general manager. A research unit in the same company might have only two levels of management. A couple of key themes or issues underlie the vertical division of labour.

Autonomy and Control. Holding other factors constant, the domain of decision making and authority is reduced as the number of levels in the hierarchy increases. Put another way, managers have less authority over fewer matters. On the other hand, a flatter hierarchy pushes authority lower and involves people further down the hierarchy in more decisions.

Communication. A second theme underlying the vertical division of labour is communication or coordination between levels. As labour is progressively divided vertically, timely communication and coordination can become harder to achieve. Recall

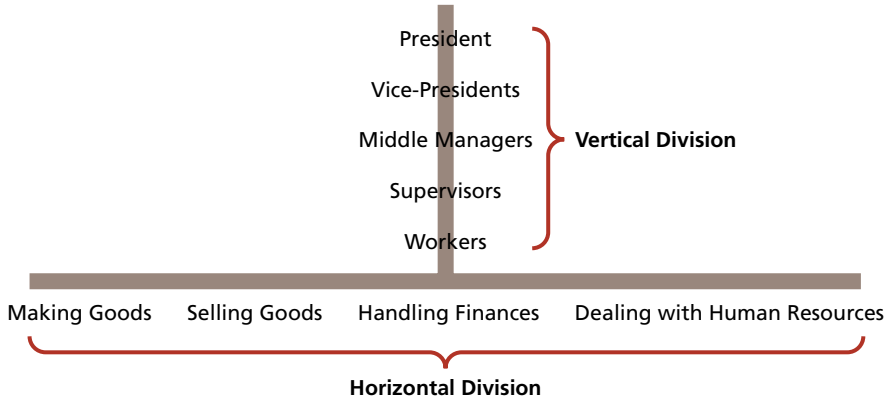


Exhibit 14.1
The dimensions of division of labour in a manufacturing firm.

our discussion in Chapter 10 of information filtering as a barrier to communication. As the number of levels in the hierarchy increases, filtering is more likely to occur.

These two themes illustrate that labour must be divided vertically enough to ensure proper control but not so much as to make vertical communication and coordination impossible. The proper degree of such division will vary across organizations and across their functional units.

Horizontal Division of Labour

The horizontal division of labour groups the basic tasks that must be performed into jobs and then into departments so that the organization can achieve its goals. Required workflow is the main basis for this division. The firm schematized in Exhibit 14.1 must produce and sell goods, keep its finances straight, and keep its employees happy. A hospital must admit patients, subject them to lab tests, fix what ails them, and keep them comfortable, all the while staying within its budget. Just as organizations differ in the extent to which they divide labour vertically, they also differ in the extent of horizontal division of labour. In a small business, the owner might be a "jack-of-all-trades," making estimates, delivering the product or service, and keeping the books. As the organization grows, horizontal division of labour is likely, with different groups of employees assigned to perform each of these tasks. Thus, the horizontal division of labour suggests some specialization on the part of the workforce. Up to a point, this increased specialization can promote efficiency. A couple of key themes or issues underlie the horizontal division of labour.

Job Design. The horizontal division of labour is closely tied to our earlier consideration of job design (Chapter 6). An example will clarify this. Suppose that an organization offers a product or service that consists of A work, B work, and C work (e.g., fabrication, inspection, and packaging). There are at least three basic ways in which it might structure these tasks:

- Form an ABC Department in which all workers do ABC work.
- Form an ABC Department in which workers specialize in A work, B work, or C work.
- Form a separate A Department, B Department, and C Department.

There is nothing inherently superior about any of these three designs. Notice, however, that each has implications for the jobs involved and how these jobs are coordinated. The first design provides for enriched jobs in which each worker can coordinate his or her own A work, B work, and C work. It also reduces the need for supervision and allows for self-managed teams. However, this design might require highly trained workers, and it might be impossible if A work, B work, and C work are complex specialties that require (for example) engineering, accounting, and legal skills. The second design involves increased horizontal division of labour in which employees specialize in tasks and in which the coordination of A work, B work, and C work becomes more critical. However, much of this coordination could be handled by properly designing the head of the department's job. Finally, the third design offers the greatest horizontal division of labour in that A work, B work, and C work are actually performed in separate departments. This design provides for great control and accountability for the separate tasks, but it also suggests that someone above the department heads will have to get involved in coordination. There are several lessons here. First, the horizontal division of labour strongly affects job design. Second, it has profound implications for the degree of coordination necessary. Finally, it also has implications for the vertical division of labour and where control over work processes should logically reside.

Differentiation. A second theme occasioned by the horizontal division of labour is related to the first. As organizations engage in increased horizontal division of labour, they usually become more and more differentiated. **Differentiation** is the tendency for managers in separate functions or departments to differ in terms of goals, time spans, and interpersonal styles.[3] In tending to their own domains and problems, managers often develop distinctly different psychological orientations toward the organization and its products or services.

Differentiation. The tendency for managers in separate departments to differ in terms of goals, time spans, and interpersonal styles.

A classic case of differentiation is that which often occurs between marketing managers and those in research and development. The goals of the marketing managers might be external to the organization and oriented toward servicing the marketplace. Those of R&D managers might be oriented more toward excellence in design and state-of-the-art use of materials. While marketing managers want products to sell *now,* R&D managers might feel that "good designs take time." Finally, marketing managers might believe that they can handle dispute resolution with R&D through interpersonal tactics learned when they were on the sales force ("Let's discuss this over lunch"). R&D managers might feel that "the design data speaks for itself" when a conflict occurs. The essential problem here is that the marketing department and the R&D department *need* each other to do their jobs properly![4] Shortly, we will review some tactics to help achieve necessary coordination.

Differentiation is a natural and necessary consequence of the horizontal division of labour, but it again points to the need for coordination, a topic that we will consider in more detail below. For now, let us examine more closely how organizations can allocate work to departments.

Departmentation

As we suggested above, once basic tasks have been combined into jobs, a question still remains as to how to group these jobs so that they can be managed effectively. The assignment of jobs to departments is called departmentation, and it represents one of the core aspects of the horizontal division of labour. It should be recognized that "department" is a generic term; some organizations use an alternative term, such as unit, group, or section. There are several methods of departmentation, each of which has its strengths and weaknesses.

Functional Departmentation. This form of organization is basic and familiar. Under **functional departmentation**, employees with closely related skills and responsibilities (functions) are located in the same department (Exhibit 14.2). Thus, those with skills in sales and advertising are assigned to the marketing department, and those with skills in accounting and credit are assigned to the finance department. Under this kind of design, employees are grouped according to the kind of resources they contribute to achieving the overall goals of the organization.[5]

Functional departmentation. Employees with closely related skills and responsibilities are assigned to the same department.

What are the advantages of functional departmentation? The most cited advantage is that of efficiency. When all the engineers are located in an engineering department, rather than scattered throughout the organization, it is easier to be sure that

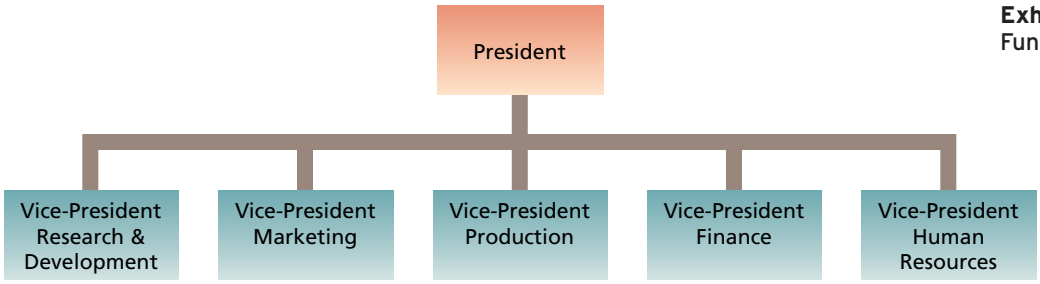


Exhibit 14.2
Functional departmentation.

they are neither overloaded nor underloaded with work. Also, support factors, such as reference books, computer terminals, and laboratory space can be allocated more efficiently with less duplication. Some other advantages of functional departmentation include the following:

- Communication within departments should be enhanced, since everyone "speaks the same language."
- Career ladders and training opportunities within the function are enhanced because all parties will share the same view of career progression.
- It should be easier to measure and evaluate the performance of functional specialists when they are all located in the same department.

What are the disadvantages of functional departmentation? Most of them stem from the specialization within departments that occurs in the functional arrangement. As a result, a high degree of differentiation can occur between functional departments. At best, this can lead to poor coordination and slow response to organizational problems. At worst, it can lead to open conflict between departments, in which the needs of clients and customers are ignored. Departmental empires might be built at the expense of pursuing organizational goals.

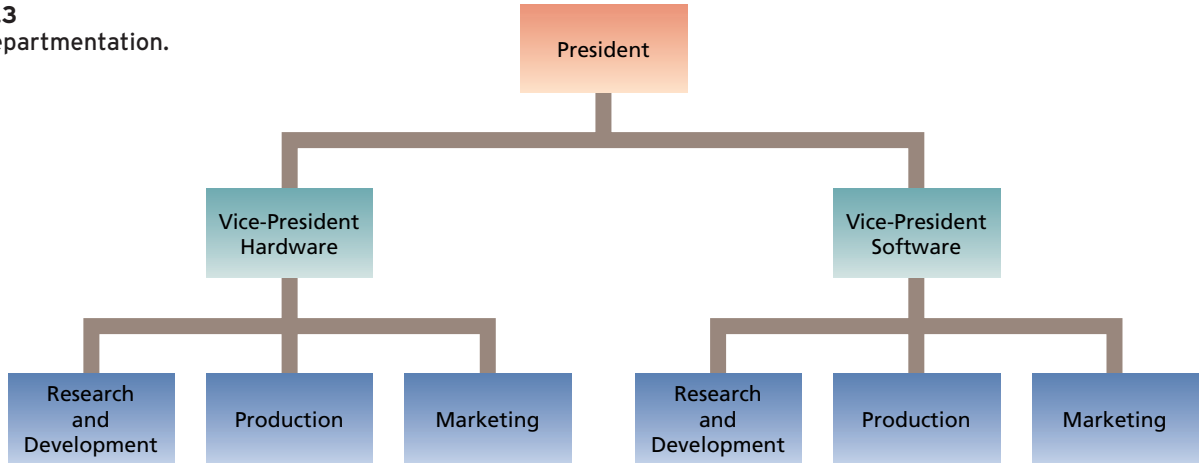
There is consensus that functional departmentation works best in small to medium-sized firms that offer relatively few product lines or services. It can also be an effective means of organizing the smaller divisions of large corporations. When the scale gets bigger and the output of the organization gets more complex, most firms gravitate toward product departmentation or its variations.

Product departmentation. Departments are formed on the basis of a particular product, product line, or service.

Product Departmentation. Under **product departmentation**, departments are formed on the basis of a particular product, product line, or service. Each of these departments can operate fairly autonomously because it has its own set of functional specialists dedicated to the output of that department. For example, a personal care firm might have a shampoo division and a cosmetics division, each with its own staff of production people, marketers, and research and development personnel (Exhibit 14.3).

What are the advantages of product departmentation? One key advantage is better coordination among the functional specialists who work on a particular product line. Since their attentions are focused on one product and they have fewer functional peers, fewer barriers to communication should develop. Other advantages include flexibility, since product lines can be added or deleted without great implications for the rest of the organization. Also, product-focused departments can be evaluated as profit centres, since they have independent control over costs and

Exhibit 14.3
Product departmentation.



revenues. This is not feasible for most functional departments (e.g., the research and development department does not have revenues). Finally, product departmentation often serves the customer or client better, since the client can see more easily who produced the product (the software group, not Ajax Consulting). All in all, product structures have more potential than functional structures for responding to customers in a timely way.

Are there any disadvantages to product departmentation? Professional development might suffer without a critical mass of professionals working in the same place at the same time. Also, economies of scale might be threatened and inefficiency might occur, if relatively autonomous product-oriented departments are not coordinated. R&D personnel in an industrial products division and a consumer products division might work on a similar problem for months without being aware of each other's efforts. Worse, product-oriented departments might actually work at cross purposes.

Matrix Departmentation. The system of **matrix departmentation** is an attempt to capitalize simultaneously on the strengths of both functional and product departmentation.[6] In its most literal form, employees remain tied to a functional department such as marketing or production, but they also report to a product manager who draws on their services (Exhibit 14.4). For example, in a firm in the chemical industry, a marketing expert might matrix with the household cleaning products group.

Matrix departmentation. Employees remain members of a functional department while also reporting to a product or project manager.

There are many variations on matrix design. Most of them boil down to what exactly gets crossed with functional areas to form the matrix and the degree of stability of the matrix relationships. For example, besides products, a matrix could be based on geographical regions or projects. For instance, a mechanical engineer in a global engineering company could report both to the mechanical engineering department at world headquarters and the regional manager for Middle East operations. This would probably be a fairly stable arrangement.

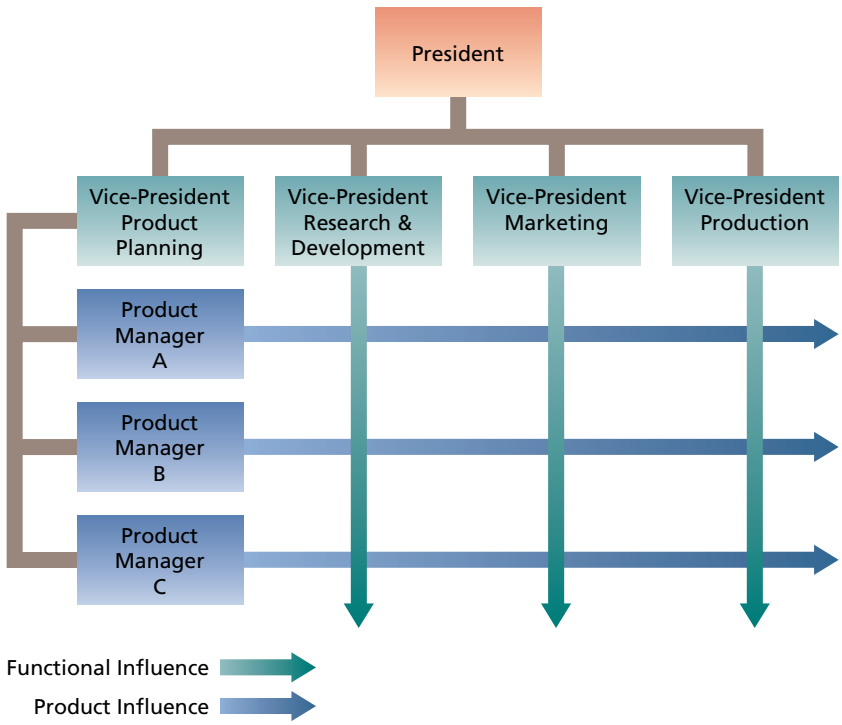


Exhibit 14.4
Matrix departmentation.

On the other hand, a matrix could be based on shorter-term projects. NASA uses this system, as do many consulting firms and research labs. The cross-functional team that designed the revived Ford Mustang (Chapter 7) drew members from various Ford functions (e.g., styling, marketing, engineering) to support this project. When the design was completed, members went on to other assignments.

The matrix system is quite elegant when it works well. Ideally, it provides a degree of *balance* between the abstract demands of the product or project and the people who actually do the work, resulting in a better outcome. Also, it is very flexible. People can be moved around as project flow dictates, and projects, products, or new regions can be added without total restructuring. Being focused on a particular product or project can also lead to better communication among the representatives from the various functional areas (precisely why Ford used a cross-functional team to design the Mustang).

Two interrelated problems threaten the matrix structure. First, there is no guarantee that product or project managers will see eye-to-eye with various functional managers. This can create conflict that reduces the advantages of the matrix. Next, employees assigned to a product or project team in essence report to two managers, their functional manager and their product or project manager. This violation of a classical management principle (every employee should have only one boss) can result in role conflict and stress, especially at performance review time. The upshot of this is that managers need to be well trained under matrix structures. In your authors' opinion, some of the bad press that matrix designs received stems from their early application in technical environments where neither functional mangers nor project managers had well-developed people-management skills.

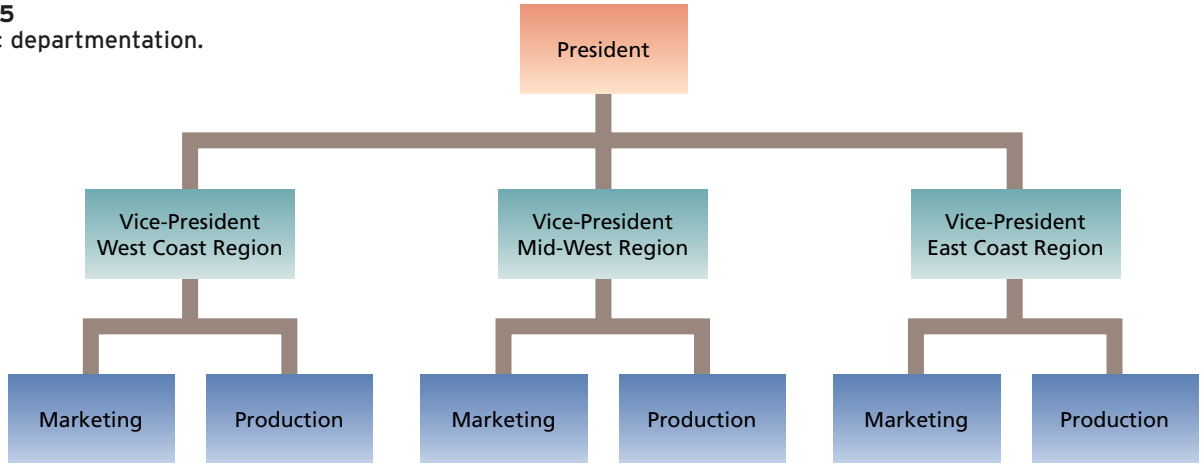
Other Forms of Departmentation. Several other forms of departmentation also exist.[7] Two of these are simply variations on product departmentation. One is geographic departmentation. Under **geographic departmentation**, relatively self-contained units deliver the organization's products or services in specific geographic territories (Exhibit 14.5). This form of departmentation shortens communication channels, allows the organization to cater to regional tastes, and gives some appearance of local control to clients and customers. National retailers, insurance companies, and oil companies generally exhibit geographic departmentation.

Geographic departmentation. Relatively self-contained units deliver an organization's products or services in a specific geographic territory.

Another form of departmentation closely related to product departmentation is customer departmentation. Under **customer departmentation**, relatively self-contained units deliver the organization's products or services to specific customer groups (Exhibit 14.6). The obvious goal is to provide better service to each customer group through specialization. For example, many banks have commercial lending

Customer departmentation. Relatively self-contained units deliver an organization's products or services to specific customer groups.

Exhibit 14.5
Geographic departmentation.



divisions that are separate from the consumer loan operations. Universities might have separate graduate and undergraduate divisions. An engineering firm might have separate divisions to cater to civilian and military customers. In general, the advantages and disadvantages of geographic and customer departmentation parallel those for product departmentation.

Finally, we should recognize that few organizations represent "pure" examples of functional, product, geographic, or customer departmentation. It is not unusual to see **hybrid departmentation**, which involves some combination of these structures. For example, a manufacturing firm might retain human resources, finance, and legal services in a functional form at headquarters but use product departmentation to organize separate production and sales staffs for each product. Similarly, McDonald's and Wal-Mart centralize many activities at their respective headquarters but also have geographic divisions that cater to regional tastes and make for efficient distribution. The hybrids attempt to capitalize on the strengths of various structures, while avoiding the weaknesses of others.

Hybrid departmentation. A structure based on some mixture of functional, product, geographic, or customer departmentation.

Basic Methods of Coordinating Divided Labour

When the tasks that will help the organization achieve its goals have been divided among individuals and departments, they must be coordinated so that goal accomplishment is actually realized. We can identify five basic methods of **coordination**, which is a process of facilitating timing, communication, and feedback.[8]

Coordination. A process of facilitating timing, communication, and feedback among work tasks.

Direct Supervision. This is a very traditional form of coordination. Working through the chain of command, designated supervisors or managers coordinate the work of their subordinates. For instance, a production supervisor coordinates the work of his or her subordinates. In turn, the production superintendent coordinates the activities of all the supervisors. This method of coordination is closely associated with our discussion of leadership in Chapter 9.

Standardization of Work Processes. Some jobs are so routine that the technology itself provides a means of coordination. Little direct supervision is necessary for these jobs to be coordinated. The automobile assembly line provides a good example. When a car comes by, worker X bolts on the left A-frame assembly, and worker Y bolts on the right assembly. These workers do not have to interact, and they require minimal supervision. Work processes can also be standardized by rules and regulations. McDonald's stringent routine for constructing a burger is such an example.

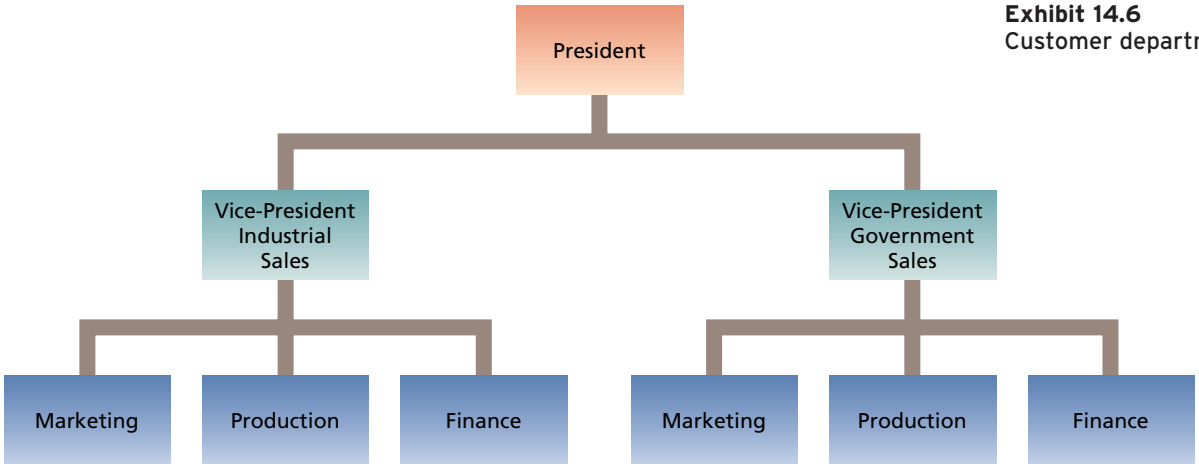


Exhibit 14.6
Customer departmentation.

Standardization of Outputs. Even when direct supervision is minimal and work processes are not standardized, coordination can be achieved through the standardization of work outputs. Concern shifts from how the work is done to ensuring that the work meets certain physical or economic standards. For instance, employees in a machine shop might be required to construct complex valves that require a mixture of drilling, lathe work, and finishing. The physical specifications of the valves will dictate how this work is to be coordinated. Standardization of outputs is often used to coordinate the work of separate product or geographic divisions. Frequently, top management assigns each division a profit target. These standards ensure that each division "pulls its weight" in contributing to the overall profit goals. Thus, budgets are a form of standardizing outputs.

Standardization of Skills. Even when work processes and output cannot be standardized, and direct supervision is unfeasible, coordination can be achieved through standardization of skills. This is seen very commonly in the case of technicians and professionals. For example, a large surgery team can often coordinate its work with minimal verbal communication because of its high degree of interlocked training—surgeons, anesthesiologists, and nurses all know what to expect from each other because of their standard training. M.B.A. programs provide some standardized skills (e.g., the ability to read a balance sheet) to people with different functional specialties.

Mutual Adjustment. Mutual adjustment relies on informal communication to coordinate tasks. Paradoxically, it is useful for coordinating the most simple and the most complicated divisions of labour. For example, imagine a small florist shop that consists of the owner-operator, a shop assistant, and a delivery person. It is very likely that these individuals will coordinate their work through informal processes, mutually adjusting to each other's needs. At the other extreme, consider the top executive team of virtually any corporation. Such teams are generally composed of people with a variety of skills and backgrounds (e.g., finance, marketing) and tend to be preoccupied with very nonroutine problems. Again, mutual adjustment would be necessary to coordinate their efforts because standardization would be impossible.

Now that we have reviewed the five basic methods of coordinating divided labour, a few comments are in order. First, as we see in Exhibit 14.7, the methods can be crudely ordered in terms of the degree of *discretion* they permit in terms of task performance. Applied strictly, direct supervision permits little discretion. Standardization of processes and outputs permits successively more discretion. (However, clever employees can "beat" these forms of standardization.) Finally, standardization of skills and mutual adjustment put even more control into the hands of those who are actually doing the work. Obviously, W.L. Gore leans toward the right of the continuum.

Notice that just as division of labour affects the design of jobs, so does the method of coordination employed. As we move from the left side to the right side of the continuum of coordination, there is greater potential for jobs to be designed in an enriched manner. By the same token, an improper coordination strategy can

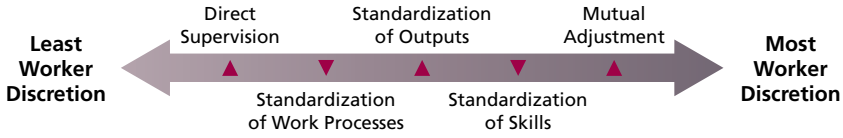


Exhibit 14.7
Methods of coordination as a continuum of worker discretion.

Source: From Mintzberg, H. (1979). *The structuring of organizations: A synthesis of research*. Englewood Cliffs, NJ: Prentice-Hall, p. 198. © 1979. Reprinted by permission of Prentice-Hall, Inc., Englewood Cliffs, NJ.

destroy the intrinsic motivation of a job. Traditionally, much work performed by professionals (e.g., scientists and engineers) is coordinated by their own skill standardization. If the manager of a research lab decides to coordinate work with a high degree of direct supervision, the motivating potential of the scientists' jobs might be damaged. *The manager* is doing the work that *they* should be doing.

The use of the various methods of coordination tends to vary across different parts of the organization. These differences in coordination stem from the way labour has been divided. As we noted, upper management relies heavily on mutual adjustment for coordination. Where tasks are more routine, such as in the lower part of the production subunit, we tend to see coordination via direct supervision or standardization of work processes or outputs.[9] Advisory subunits staffed by professionals, such as a legal department or a marketing research group, often rely on a combination of skill standardization and mutual adjustment.

Finally, methods of coordination may change as task demands change. Under peacetime conditions or routine wartime conditions, the army relies heavily on direct supervision through a strict chain of command. However, this method of coordination can prove ineffective for fighting units under heavy fire. Here, we might see a sergeant with a radio instructing a captain where to direct artillery fire. This reversal of the chain of command is indicative of mutual adjustment. Similarly, the trend toward self-managed work teams (Chapter 7) downplays direct supervision and focuses on mutual adjustment among team members.

Other Methods of Coordination

The forms of coordination we discussed above are very basic, in that almost every organization uses them. After all, when do we see an organization that *does not* exhibit some supervision, some standardization, and some talking things out? Sometimes, however, coordination problems are such that more customized, elaborate mechanisms are necessary to achieve coordination. This is especially true when we are speaking of lateral coordination across highly differentiated departments. Recall that the managers of such departments might vary greatly in goals, time spans, and interpersonal orientation. Figuratively at least, they often "speak different languages." The process of attaining coordination across differentiated departments usually goes by the special name of **integration**.[10] Good integration achieves coordination without reducing the differences that enable each department to do its own job well.[11] For example, in a high-technology firm, we do not *want* production and engineering to be so cosy that innovative tension is lost.[12]

Integration. The process of attaining coordination across differentiated departments.

In ascending order of elaboration, three methods of achieving integration include the use of liaison roles, task forces, and full-time integrators.[13]

Liaison Roles.

A **liaison role** is occupied by a person in one department who is assigned, as part of his or her job, to achieve coordination with another department. In other words, one person serves as a part-time link between two departments. Sometimes the second department might reciprocate by nominating its own liaison person. For example, in a university library, reference librarians might be required to serve as liaison people for certain academic departments or schools. In turn, an academic department might assign a faculty member to "touch base" with its liaison in the library. Sometimes, liaison people might actually be located physically in the corresponding department.

Liaison role. A person is assigned to help achieve coordination between his or her department and another department.

Task Forces and Teams.

When coordination problems arise that involve several departments simultaneously, liaison roles are not very effective. **Task forces** are temporary groups set up to solve coordination problems across several departments. Representatives from each department are included on a full-time or part-time basis, but when adequate integration is achieved, the task force is disbanded. Citicorp, Xerox, and Ford are firms that have made extensive use of task forces.

Task forces. Temporary groups set up to solve coordination problems across several departments.

Self-managed and cross-functional teams (Chapter 7) are also an effective means of achieving coordination. Such teams require interaction among employees who might otherwise operate in an independent vacuum. Cross-functional teams are especially useful in achieving coordination for new product development and introduction.

Integrators. Organizational members permanently assigned to facilitate coordination between departments.

Integrators. **Integrators** are organizational members who are permanently installed between two departments that are in clear need of coordination. In a sense, they are full-time problem solvers. Integrators are especially useful for dealing with conflict between (1) highly interdependent departments, (2) which have very diverse goals and orientations, (3) in a very ambiguous environment. Such a situation occurs in many high-technology companies.[14] For example, a solid-state electronics firm might introduce new products almost every month. This is a real strain on the production department, which might need the assistance of the design scientists to implement a production run. The scientists, on the other hand, rely on production to implement last-minute changes due to the rapidly changing technology. This situation badly requires coordination.

You Be the Manager

Organizational Structure and Service Excellence



At McDonald's, nothing is left to chance or voluntarism, from layout to equipment to the behaviour of staff.

Many organizations now realize that service quality and excellence can provide them with a competitive advantage. Organizations that can differentiate themselves in terms of unique service activities can also improve their competitiveness. For example, even a bread manufacturer whose product is the same as those of the competitors can have an advantage over them by managing distribution and other service elements more effectively.

Service quality can be understood in terms of a number of key criteria that customers use to evaluate service quality. The criteria include reliability, responsiveness, competence, courtesy, communication, and understanding and knowing the customer. Two companies known for service quality are McDonald's restaurants and Ritz-Carlton Hotels.

Interestingly, the approach taken by these two organizations to service excellence is very different. At McDonald's, for example, nothing is left to chance or voluntarism, from layout, to equipment, to the behaviour of the staff. All this is dictated in a detailed operations manual developed at company headquarters. The manual provides instructions for training employees how to present themselves, what to say to customers, and how to do their jobs. For example, strict grooming standards require that men keep their hair short and their shoes black and polished, and women are expected to wear hair nets and to use only very light makeup. McDonald's standards and procedures have contributed to the company's world-wide success.

Service excellence is also a major concern for Ritz-Carlton Hotels, a winner of the Baldridge Award for quality. Employees at Ritz-Carlton are part of a team, and they are empowered to do whatever is necessary to satisfy a customer. And depending on the level of the employee, this means spending up to $4,000 to make something right for a customer. Employees and managers at Ritz-Carlton Hotels expect each other to do whatever it takes to delight hotel guests.

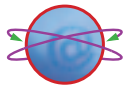
Clearly, McDonald's and Ritz-Carlton have different approaches for delivering service excellence, and they also have different organizational structures that are designed to ensure that they meet customers' expectations and provide quality service. Failure to meet customer expectations can be the result of an inadequate organizational structure.

Integrators usually report directly to the executive to whom the heads of the two departments report. Ideally, they are rewarded according to the success of both units. A special kind of person is required for this job, since he or she has great responsibility but no direct authority in either department. The integrator must be unbiased, "speak the language" of both departments, and rely heavily on expert power.[15] An engineer with excellent interpersonal skills might be an effective integrator for the electronics firm.

Before continuing, please consider the You Be the Manager feature.

Traditional Structural Characteristics

Every organization is unique in the exact way that it divides and coordinates labour. Few business firms, hospitals, or schools have perfectly identical structures. What is needed, then, is some efficient way to summarize the effects of the vertical and horizontal division of labour and its coordination on the structure of the organization.



Ritz-Carlton Hotels and Resorts
www.ritzcarlton.com

COM DEV
www.comdev.ca

For example, the consumer-products company Procter & Gamble Co. had a product departmentation organization structure. In particular, seven sales representatives, known as the Seven Dwarfs, each managed a specific product line, such as laundry detergent. This meant that each sales representative would make separate calls on retailers, and they rarely communicated with each other. As a result, retailers had to order each P&G product separately. Further, because each product line followed its own policies, retailers had to purchase each product according to a particular policy. For example, Tide detergent might be delivered in cases as ordered, but to get a reasonable price for Charmin, each store would have to take a full truckload, even if the product would sit in the retailer's warehouse.

COM DEV, an international manufacturer of space and ground-based wireless communications products located in Cambridge, Ontario, saw its stock soar from $8.25 to $40.25 within 10 months of going public. The future looked bright for the company, which was expected to continue to prosper. However, within just a short period of time, the company's revenue began to decline and its shares began to sharply fall and reached levels below $5. One of the major reasons noted for COM DEV's decline is bungled customer relations and the way the company deals with customers. COM DEV's organizational structure is a classic product departmentation, that is, the company is organized according to separate functions, including an engineering group, a sales group, a marketing group, a manufacturing group, and so on. Unfortunately, this presented problems when dealing with customers and made it difficult to determine who was responsible and accountable for failures in customer service.

Could these companies improve customer service by changing the organizational structure? You be the manager.

Questions

1. What are the structural characteristics required for service quality at McDonald's and Ritz-Carlton Hotels?
2. How can Proctor & Gamble Co. and COM DEV change their organizational structures to improve service quality?

To find out more about the structure of these organizations and customer service, see The Manager's Notebook.

Sources: Horwitz, F. M., & Neville, M. A. (1996). Organization design for service excellence: A review of the literature. *Human Resource Management, 35*, 471–492; Narisetti, R. (1997, January 15). Too many choices: P&G, seeing shoppers wee being confused, overhauls marketing. *The Wall Street Journal*, pp. A1, A8; North, D. (1998, December 24; 1999, January 8). Lost in space. *Canadian Business*, 45–48; Ritzer. G. (1993). *The McDonaldization of society*. Thousand Oaks, CA: Pine Forge Press; Schneider, B., & Bowen, D. E. (1995). *Winning the Service Game*. Boston, MA: Harvard Business School Press.

Over the years, management scholars and practising managers have agreed on a number of characteristics that summarize the structure of organizations.[16]

Span of Control

Span of control. The number of subordinates supervised by a manager.

The **span of control** is the number of subordinates supervised by a manager. There is one essential fact about span of control: The larger the span, the less *potential* there is for coordination by direct supervision. As the span increases, the attention that a supervisor can devote to each subordinate decreases. When work tasks are routine, coordination of labour through standardization of work processes or output often substitutes for direct supervision. Thus, at lower levels in production units, it is not unusual to see spans of control ranging to over 20. In the managerial ranks, tasks are less routine, and adequate time is necessary for informal mutual adjustment. As a result, spans at the upper levels tend to be smaller. Also, at lower organizational levels, workers with only one or a few specialties report to a supervisor. For instance, an office supervisor might supervise only clerks. As we climb the hierarchy, workers with radically different specialties might report to the boss. For example, the president might have to deal with vice-presidents of human resources, finance, production, and marketing. Again, the complexity of this task might dictate smaller spans.[17]

Flat versus Tall

Flat organization. An organization with relatively few levels in its hierarchy of authority.

Tall organization. An organization with relatively many levels in its hierarchy of authority.

Holding size constant, a **flat organization** has relatively few levels in its hierarchy of authority, while a **tall organization** has many levels. Thus, flatness versus tallness is an index of the vertical division of labour. Again, holding size constant, it should be obvious that flatness and tallness are associated with the average span of control. This is shown in Exhibit 14.8. Both schematized organizations have 31 members. However, the taller one has five hierarchical levels and an average span of two, while the flatter one has three levels and an average span of five. Flatter structures tend to push decision-making powers downward in the organization because a given number of decisions are apportioned among fewer levels. Also, flatter structures generally enhance vertical communication and coordination.

Differences in organizational height can exist even within industries. Some analysts have argued that the flatter Japanese car manufacturers are able to make decisions more quickly and get new products to market faster than the taller U.S. automakers.[18] In general, there has been a North American trend toward flatter organizations, especially with downsizing, a topic we will cover shortly.

Formalization

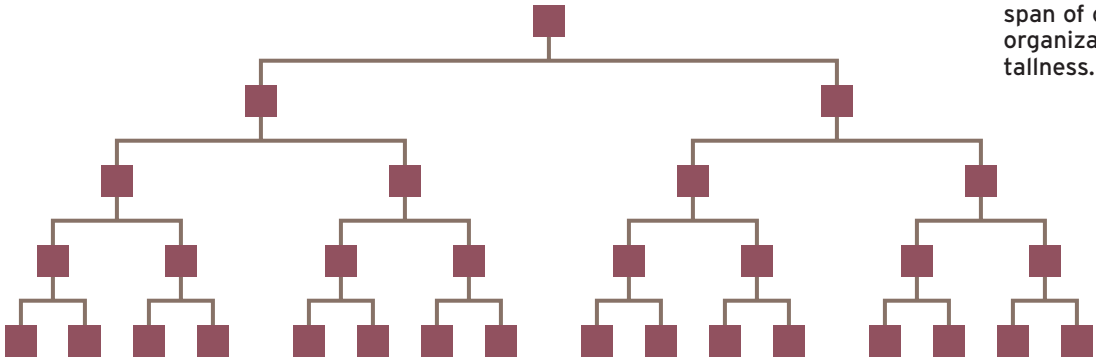
Formalization. The extent to which work roles are highly defined by an organization.

Formalization is the extent to which work roles are highly defined by the organization.[19] A very formalized organization tolerates little variability in the way members perform their tasks. Some formalization stems from the nature of the job itself; the work requirements of the assembly line provide a good example of this. More interesting, however, is formalization that stems from rules, regulations, and procedures that the firm or institution chooses to implement. Detailed, written job descriptions, thick procedure manuals, and the requirement to "put everything in writing" are evidence of such formalization.

Very complex tasks dictate high formalization. In designing its 777 aircraft, Boeing used information technology to manage the development and modification of thousands of drawings and documents, thus coordinating the work of 5000 individuals at more than 20 locations.[20]

Sometimes, formalization seems excessive. Perhaps this is why so many fast food employees ignore the hair-net rule. A U.S. Energy Department document detailing how to change a light bulb in a radioactive area is 317 pages long and specifies duties for 43 people.[21]

Tall Organization: 31 Members; 5 Levels; Average Span of Control Is 2



Flat Organization: 31 Members; 3 Levels; Average Span of Control Is 5

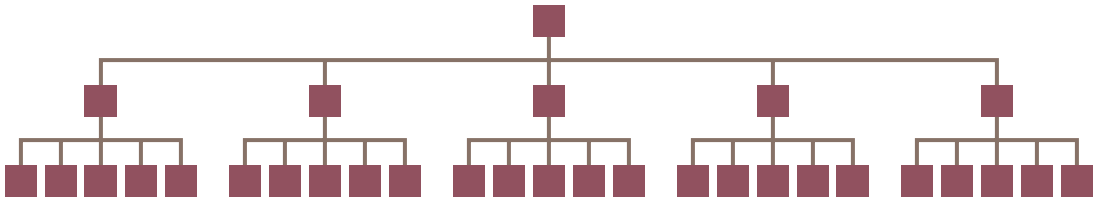


Exhibit 14.8
The relationship between span of control and organizational flatness and tallness.

Centralization

Centralization is the extent to which decision-making power is localized in a particular part of the organization. In the most centralized organization, the power for all key decisions would rest in a single individual, such as the president. In a more decentralized organization, decision-making power would be dispersed down through the hierarchy and across departments. One observer suggests that limitations to individual brainpower often prompt decentralization:

Centralization. The extent to which decision-making power is localized in a particular part of an organization.

> How can the Baghdad salesperson explain the nature of his clients to the Birmingham manager? Sometimes the information can be transmitted to one centre, but a lack of cognitive capacity (brainpower) precludes it from being comprehended there. How can the president of the conglomerate corporation possibly learn about, say, 100 different product lines? Even if a report could be written on each, he would lack the time to study them all.[22]

Of course, the information-processing capacity of executives is not the only factor that dictates degree of centralization. Some organizations consciously pursue a more participative climate through decentralization. Bill Gore thought this way very explicitly. In others, top management might wish to maintain greater control and opt for stronger centralization. One of founder Ray Kroc's innovations was not to permit *regional* franchises that could grow powerful and challenge the basic business principles of McDonald's.[23] The successful North Carolina-based supermarket chain Food Lion has generally decentralized with growth, giving local managers more autonomy in order to stay close to customers and cater to regional differences. However, the buying function and store design and construction have remained centralized to maintain efficiency and contain costs. Also, the lighting all of its 1,185 stores spanning many states is centralized with computer control.[24]

The proper degree of centralization should put decision-making power where the best *knowledge* is located. Often, this means decentralizing functions with direct customer contact, while centralizing functions that have a more internal orientation (e.g., information technology group).



At Food Lion, buying is centralized, but local managers have autonomy to stay close to customers.

Complexity

Complexity. The extent to which an organization divides labour vertically, horizontally, and geographically.

Complexity is the extent to which organizations divide labour vertically, horizontally, and geographically.[25] A fairly simple organization will have few management levels (vertical division) and not many separate job titles (horizontal division). In addition, jobs will be grouped into a small number of departments, and work will be performed in only one physical location (geographic division). At the other extreme, a very complex organization will be tall, will have a large number of job titles and departments, and might be spread around the world. The essential characteristic of complexity is *variety*—as the organization becomes more complex, it has more kinds of people performing more kinds of tasks in more places, whether these places are departments or geographic territories.

Summarizing Structure—Organic versus Mechanistic

Do the various structural characteristics that we have been reviewing have any natural relationship to one another? Is there any way to summarize how they tend to go together?

If you think back to the very first chapter of the book, you will recall how early prescriptions about management tended to stress employee specialization, along with a very high degree of control and coordination. These themes were common to the classical management theorists, Taylor's Scientific Management, and Weber's bureaucracy. On the other hand, you will also recall how the human relations movement detected some of the problems that specialization and control can lead to—boredom, resentment, and low motivation. Consequently, these human relations advocates favoured more flexible management systems, open communication, employee participation, and so on.

Mechanistic structures. Organizational structures characterized by tallness, specialization, centralization, and formalization.

In general, the classical theorists tended to favour **mechanistic structures**.[26] As Exhibit 14.9 demonstrates, these structures tend toward tallness, narrow spans, specialization, high centralization, and high formalization. The other structural and

Organizational Characteristics	Types of Organization Structure	
Index	**Organic**	**Mechanistic**
Span of control	Wide	Narrow
Number of levels of authority	Few	Many
Ratio of administrative to production personnel	High	Low
Range of time span over which an employee can commit resources	Long	Short
Degree of centralization in decision making	Low	High
Proportion of persons in one unit having opportunity to interact with persons in other units	High	Low
Quantity of formal rules	Low	High
Specificity of job goals	Low	High
Specificity of required activities	Low	High
Content of communications	Advice and information	Instructions and decisions
Range of compensation	Narrow	Wide
Range of skill levels	Narrow	Wide
Knowledge-based authority	High	Low
Position-based authority	Low	High

Exhibit 14.9
Mechanistic and organic structures.

Source: From Seiler, J. A. (1967). *Systems analysis in organizational behavior*. Homewood, IL: Irwin, p. 168. © Richard D. Irwin, Inc. 1967. This exhibit is an adaptation of one prepared by Paul R. Lawrence and Jay W. Lorsch in an unpublished "Working Paper on Scientific Transfer and Organizational Structure," 1963. The latter, in turn, draws heavily on criteria suggested by W. Evans. "Indices of the Hierarchical Structure of Industrial Organizations," *Management Science, 9* (1963), 468–477, Burns and Stalker, *op. cit.*, and Woodward, *op. cit.*, as well as those suggested by R. H. Hall, "Intraorganizational Structure Variables," *Administrative Science Quarterly, 9*, 295–308.

human resources aspects in the exhibit complement these basic structural prescriptions. By analogy, the organization is structured as a mechanical device, each part serving a separate function, each part closely coordinated with the others. Speaking generally, functional structures tend to be rather mechanistic.

We can contrast mechanistic structures with organic structures. As shown in Exhibit 14.9, **organic structures** tend to favour wider spans, fewer authority levels, less specialization, less formalization, and decentralization. Flexibility and informal communication are favoured over rigidity and the strict chain of command. Thus, organic structures are more in line with the dictates of the human relations movement. Speaking generally, the matrix form is organic.

Organic structures.
Organizational structures characterized by flatness, low specialization, low formalization, and decentralization.

The labels *mechanistic* and *organic* represent theoretical extremes, and structures can and do fall between these extremes. But is one of these structures superior to the other? To answer this, pause for a moment and consider the structures of a fast-food restaurant chain like McDonald's and the structure of W.L. Gore & Associates, Inc. discussed in the chapter-opening vignette. At the restaurant level, McDonald's is structured very mechanistically. This structure makes perfect sense for the rather routine task of delivering basic convenience food to thousands of people every day and doing it with uniform quality and speed. Of course, McDonald's headquarters, which deals with less routine tasks (e.g., product development, strategic planning), would be more organically structured. W.L. Gore & Associates, Inc. develops and manufactures products that are highly dependent on fast-changing high technology. Its founder also despised bureaucracy. An organic structure suits Gore perfectly.

In general, more mechanistic structures are called for when an organization's environment is more stable and its technology is more routine. Organic structures tend to work better when the environment is less stable and the technology is less routine. We will examine these matters in more detail in the next chapter. For now, it is enough to recognize that there is no "one best way" to organize.

Contemporary Organic Structures

Recent years have seen the advent of new, more organic organizational structures. Global competition and deregulation, as well as advances in technology and com-

munications, have motivated these structures. Typically, the removal of unnecessary bureaucracy and the decentralization of decision making result in a more adaptable organization. Let's examine some contemporary organic organizational structures.

Network and Virtual Organizations

Network organization. Liaisons between specialist organizations that rely strongly on market mechanisms for coordination.

In a **network organization**, various functions are coordinated as much by market mechanisms as by managers and formal lines of authority.[27] That is, emphasis is placed on who can do what most effectively and economically rather than on fixed ties dictated by an organizational chart. All the assets necessary to produce a finished product or service are present in the network as a whole, not held in-house by one firm. Ideally, the network members cooperate, share information, and customize their services to meet the needs of the network.

In stable networks, core firms that are departmentalized by function, product, or some other factor contract out some functions to favoured partners so that they can concentrate on the things that they do best (see the left of Exhibit 14.10). DaimlerChrysler, for instance, has its car seats supplied by an upstream firm that also does all the research associated with seating.

Virtual organization. A network of continually evolving independent organizations that share skills, costs, and access to one another's markets.

Particularly interesting networks are dynamic or virtual organizations, such as that illustrated in the right portion of Exhibit 14.10. In a **virtual organization** an alliance of independent companies share skills, costs, and access to one another's markets. Thus, they consist of a network of continually evolving independent companies.[28] A "broker" firm with a good idea invents a network in which a large amount of the work is done by other network partners who might change over time or projects. Each partner in a virtual organization contributes only in its area of core competencies. Contemporary book publishers are good examples. These firms do not employ authors, print books, or distribute books. Rather, they specialize in contracting authors for a particular project, providing developmental assistance, and marketing the final product. Printing, distribution, and some editorial and design work are handled by others in the network. Such networks are not new, as they have been used for years in the fashion and film industries. However, more firms in other industries, such as computers and biotechnology, now adopt network forms. For instance, the IBM PC was developed using virtual practices.

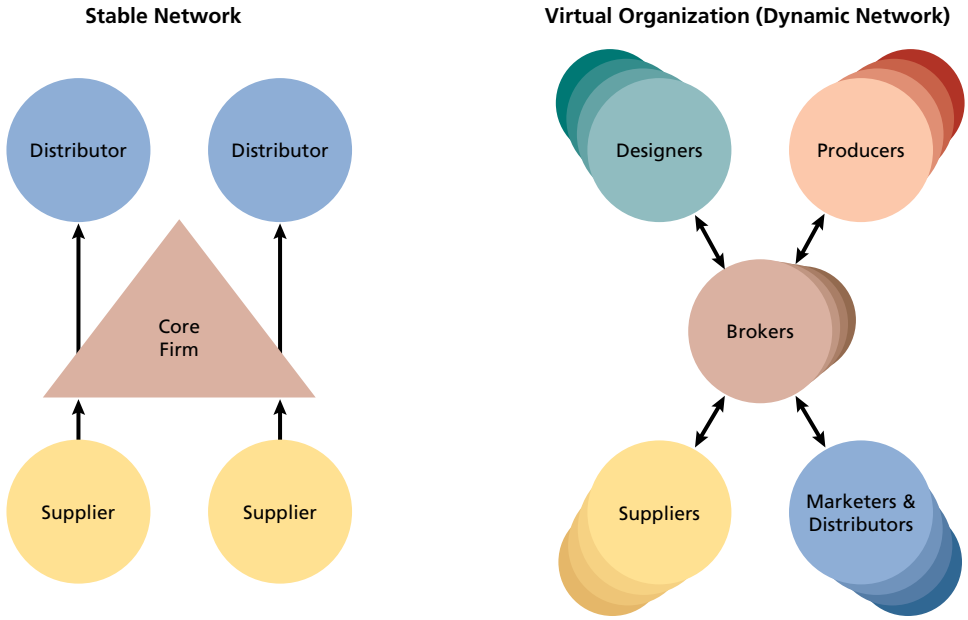


Exhibit 14.10
Types of network organizations.

Source: From R.E. Miles and C.C. Snow. "Causes of failure in network organizations." Copyright © 1992 by The Regents of the University of California. Reprinted from the *California Management Review,* Vol. 34, No. 4. By permission of The Regents.

As indicated, a key advantage of the network form is its flexibility and adaptability. A virtual organization is even more flexible than a matrix. Networks also allow organizations to specialize in what they do best. In its network, DaimlerChrysler has intentionally positioned itself as a car manufacturer, not a car seat manufacturer. In turn, its supplier has a strong incentive to specialize in its product because DaimlerChrysler is a good, stable customer.

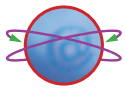
Network and virtual organizations face some special problems.[29] Stable networks can deteriorate when the companies dealing with the core firm devote so much of their effort to this firm that they are isolated from normal market demands. This can make them "lazy," resulting in a loss of their technological edge. Virtual organizations lose their organic advantage when they become legalistic, secretive, and too binding of the other partners. On the other side of the coin, virtual partners sometimes exploit the loose structure to profit at the expense of the core firm. The computer industry has experienced both problems with its network arrangements. For instance, the main beneficiaries of the advent of the PC were Microsoft (the operating system supplier) and Intel (the microprocessor supplier), not IBM.[30] It is now believed that in order for network organizations to be successful, they must adopt a spherical structure. To find out more, see "Applied Focus: *The Multifirm Spherical Network*."

The Modular Organization

In today's highly uncertain and fast-changing environment, many organizations are realizing that there are advantages to not becoming a large and vertically integrated bureaucracy. Instead, they focus on a few core activities that they do best, such as designing and marketing computers, and let other companies perform all the other activities. A **modular organization** is an organization that performs a few core functions and outsources noncore activities to specialists and suppliers. Services that are often outsourced include the manufacturing of parts, trucking, catering, data processing, and accounting. Thus, modular organizations are like hubs that are surrounded by networks of suppliers that can be added or removed as needed. And unlike a virtual organization, in which the participating firms give up part of their control and are interdependent, the modular organization maintains complete strategic control.[31]

Modular organization. An organization that performs a few core functions and outsources noncore activities to specialists and suppliers.

By outsourcing noncore activities, modular organizations are able to keep unit costs low and develop new products more rapidly. It also allows them to use their capital in areas where they have a competitive advantage, such as design and marketing. This has enabled companies such as Dell Computer and Nike to experience large and rapid growth in a relatively short period of time, as they have not had to invest in fixed assets. Nike and Reebok concentrate on designing and marketing high-tech fashionable sports and fitness footwear. However, Nike has limited production facilities and Reebok does not even own a plant. Both organizations contract out production to suppliers in countries with low-cost labour, such as Taiwan, South Korea, and other Asian countries.[32]



Dell Computers
www.dell.ca

Nike
www.nike.com

Modular organizations in the electronics industry buy their products already built or they buy the parts from suppliers and then assemble them. Dell Computer, for example, assembles computers from outsourced parts, and this allows them to focus on marketing and service. Because it does not own any plants, Dell can afford to invest in areas such as training salespeople and service technicians, although even most of its technicians are outsourced.[33] The automotive industry in North America has also begun to be heavily involved in outsourcing and to become increasingly modular. A major player in the outsourcing of auto parts is Canada's Magna International, the world's leading auto-parts supplier. Consider DaimlerChrysler's minivan. Magna designs, engineers, and manufactures a great deal of the vehicle, including the seats, mirrors, door panels, locks, and more. An increasing number of

APPLIED FOCUS

The Multifirm Spherical Network

Technical and Computer Graphics (TCG), located in Sydney, Australia, a group of small companies that, by practising sophisticated entrepreneurship, project leadership and self-management, has become the largest privately owned computer service business in Australia. It is a highly interactive network of 24 companies with combined annual revenues of approximately $50 million and a staff of about 200. TCG is considered to be one of its country's most significant innovators in portable data terminals, computer graphics, simulators, bar-coding systems, electronic data interchange, electronic identification tags, and other applications of information and communications technology.

Within TCG, new product development (and hence network expansion) is called "triangulation," meaning that it involves a three-cornered partnership among a TCG firm, a similar technology-based firm outside TCG, and a major customer. The triangular product-development process typically involves five key steps: (1) Identify the market niche; (2) find a developmental partner; (3) locate a major customer; (4) involve other TCG firms; and (5) extend the triangle in new directions.

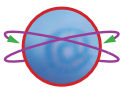
In a multifirm spherical network, such as that used by TCG, every individual is expected to be an entrepreneur and sometime project leader. Moreover, every individual in the various TCG firms works closely, as part of a self-managed team, with other professionals in the network. Although the total network staff of 200 individuals is small by most company comparisons, the organization has global reach. And, perhaps most importantly, TCG has few rules and no pyramidical management hierarchy.

TCG's success, based on the widespread application of technical, entrepreneurial, and self-management skills, provides evidence of how a group of small firms can hook themselves together to form a highly flexible spherical network. But can this structure work in large companies? The evidence suggests that it can.

A good example of a well-developed, large-company spherical network is that operated by electrical equipment manufacturer ABB (Asea Brown Boveri). Although ABB has over 200,000 employees, all work in small organizational units. The average plant employs fewer than 200 workers, and most of the company's 5,000 profit centres contain only 40 to 50 people. Even though the members of most ABB plants and offices do not directly engage in entrepreneurial activities, they come into contact with both external customers and internal partners through ABB's equivalent of global trading companies, called business areas. Thus, like TCG, virtually every member of the firm is close to the customer and responsive to market developments. ABB also has minimized the amount of rule-guided behaviour among its internal units, substituting instead a series of market-oriented processes and rewards that encourage cooperation and mutually beneficial actions.

The overall success of a spherical network organization hinges on management's' willingness to put people in this type of arrangement and the ability to make such an arrangement work once it has been designed. This requires a human resource management philosophy in which employees act as partners in their own development. Managers, in turn, must not only facilitate employee development but also locate opportunities for employees to apply their continuously expanding knowledge and ability.

Source: Excerpted from Miles, R. E., & Snow, C. C. (1995, Spring). The new network firm: A spherical structure built on a human investment philosophy. *Organizational Dynamics*, 5–18.



Toyota
www.toyota.com

auto makers are now outsourcing major parts of their vehicles to parts suppliers like Magna in an effort to improve efficiency and quality. The trend is also catching on in Europe and Japan.[34] For example, Toyota has achieved great success by relying on a network of suppliers.[35] Outsourcing is also taking place among auto parts suppliers, as manufacturers of smaller parts are providing the supplies for those who make the larger parts.[36]

Although there are many advantages to the modular organization, there are also some disadvantages. Modular organizations work best when they focus on the right speciality and have good suppliers. Because they are dependent on so many outsiders, it is critical that they find suppliers who are reliable and loyal and can be trusted with trade secrets. Modular organizations also must be careful not to outsource critical technologies, which could diminish future competitive advantages. Another disadvantage of the modular organization is that it decreases operational control due its dependence on outsiders.[37]



Modular organizational structures enable organizations to keep unit costs low and develop new products rapidly by outsourcing noncore activities and focusing on what they do best.

In summary, the modular organization is a lean and streamlined organizational structure with great flexibility, making it particularly well suited to organizations in rapidly changing environments. Many modular organizations have become extremely profitable and competitive. And although modular organizational structures have been most popular in the trendy fast-paced apparel and electronics industries, other industries, such as automotive, steel, chemicals, and photographic equipment, are also becoming more modular.[38]

The Boundaryless Organization

An important outcome of the division and coordination of labour is that the structure of most organizations consists of a rigid vertical hierarchy and many departments. As a result, traditional organizational structures consist of boundaries or barriers that divide people at different hierarchical levels and separate those in different departments. This can be problematic to the extent that the different levels and departments are interdependent, as is usually the case in most organizations. In other words, the work in one department is dependent on and affects the performance of other departments. Such interdependence often results in open conflict. For example, in organizations with a tall vertical hierarchy, there can be conflict between employees at the lower levels and management in the upper ranks. In organizations with a functional structure, the various departments often do not communicate or coordinate their efforts even though their tasks are interdependent. Thus, the barriers that exist in traditional organizational structures can stifle productivity and innovation.[39]

Former General Electric CEO Jack Welch says boundaries are dysfunctional because they separate employees from management, and the organization from its customers and suppliers. In order to remove the vertical and horizontal boundaries in organizations, Welch developed the idea of the boundaryless organization. In a **boundaryless organization**, the boundaries that divide employees, such as hierarchy, job function, and geography, as well as those that distance companies from suppliers and customers are broken down.[40] Thus, a boundaryless organization removes vertical, horizontal, and external barriers so that employees, managers, customers, and suppliers can work together, share ideas, and identify the best ideas for the organization.

Boundaryless organization. An organization that removes vertical, horizontal, and external barriers so that employees, managers, customers, and suppliers can work together, share ideas, and identify the best ideas for the organization.

What does the structure of a boundaryless organization look like? Instead of being organized around functions with many hierarchical levels, the boundaryless organization is made up of self-managing and cross-functional teams that are organized around core business processes that are critical for satisfying customers, such as new-product development or materials handling. The teams comprise individuals from different functional areas within the organization, as well as customers and suppliers. Each business process has an owner who is in charge of the process and process performance. Thus, the traditional vertical hierarchy is flattened and replaced by layers of teams making the organization look more horizontal than vertical.[41] Information and knowledge can be quickly distributed throughout the organization and directly to where it is needed without first being filtered by a tall vertical hierarchy.[42] Boundaryless organizations are able to achieve greater integration and coordination within the organization and with external stakeholders.

A good example is Chrysler's development of the Neon before the merger with Daimler-Benz. Chrysler wanted to develop a profitable subcompact vehicle, something that it had previously been unable to do. Rather than find a partner as some other automobile makers had done, the company decided to try something new. They involved many internal and external stakeholders including personnel from different functional areas, such as engineering, marketing, purchasing, finance, and labour, as well as suppliers and consumers. By removing the boundaries between these groups and having them work together, the company was able to avoid delays that are often the result of disagreements and misunderstandings. As a result, Chrysler developed the Neon in a record 42 months at a price tag of $1.3 billion. By comparison, Ford spent $2 billion and took five years to develop the money-losing Ford Escort, and GM spent $5 billion and took seven years to develop the Saturn.[43]

While boundaryless organizations have a number of advantages, including the ability to adapt to environmental changes, they have a number of disadvantages. For example, it can be difficult to overcome political and authority boundaries, and it can be time consuming to manage the democratic processes required to coordinate the efforts of many stakeholders.[44] Even General Electric realizes that it will take years before being boundaryless becomes natural.[45] Nonetheless, some believe that the boundaryless organization is the perfect organizational structure for the 21st century.[46]

In summary, many of the traditional organizational structures are being replaced by more flexible structures that break down external and internal boundaries. Network or virtual organizations and modular organizations represent structures that break down or modify external organizational boundaries, and the boundaryless organization is an attempt to remove both external and internal boundaries. For many organizations, traditional organizational structures are no longer effective, and so they must find new ways to structure and coordinate their efforts in order to adapt to environmental changes and to remain competitive.

The Impact of Size

It is perhaps trivial to note that the giant General Motors Corporation is structured differently from a small video rental shop. But exactly how does organizational size (measured by number of employees) affect the structure of organizations?[47]

Size and Structure

In general, large organizations are more complex than small organizations.[48] For example, a small organization is unlikely to have its own legal department or market research group, and these tasks will probably be contracted out. Economies of scale enable large organizations to perform these functions themselves but with a

consequent increase in the number of departments and job titles. In turn, this horizontal specialization often stimulates the need for additional complexity in the form of appointing integrators or creating planning departments. As horizontal specialization increases, management levels must be added (making the organization taller) so that spans of control do not get out of hand.[49] To repeat, size is associated with increased complexity.

Complexity means coordination problems, in spite of integrators, planning departments, and the like. This is where other structural characteristics come into play. In general, bigger organizations are less centralized than smaller organizations.[50] In a small company, the president might be involved in all but the least critical decisions. In a large company, the president would be overloaded with such decisions, and they could not be made in a timely manner. In addition, since the large organization will also be taller, top management is often too far removed from the action to make many operating decisions. How is control retained with decentralization? The answer is formalization—large organizations tend to be more formal than small organizations. Rules, regulations, and standard procedures help to ensure that decentralized decisions fall within accepted bounds.

Two further points about the relationship between size and structure should be emphasized. First, you will recall that product departmentation is often preferable to functional departmentation as the organization increases in size. Logically, then, organizations with product departmentation should exhibit more complexity and more decentralization than those with functional departmentation. A careful comparison of Exhibits 14.2 and 14.3 will confirm this logic. In the firm with the product structure, research, production, and marketing are duplicated, increasing complexity. In addition, since each product line is essentially self-contained, decisions can be made at a lower organizational level.

Finally, we should recognize that size is only one determinant of organizational structure. Even at a given size, organizations might require different structures to be maximally effective. In the next chapter, we will examine other determinants of structure, principally environmental pressures and technology.

Exhibit 14.11 summarizes the relationship between size and structural variables.

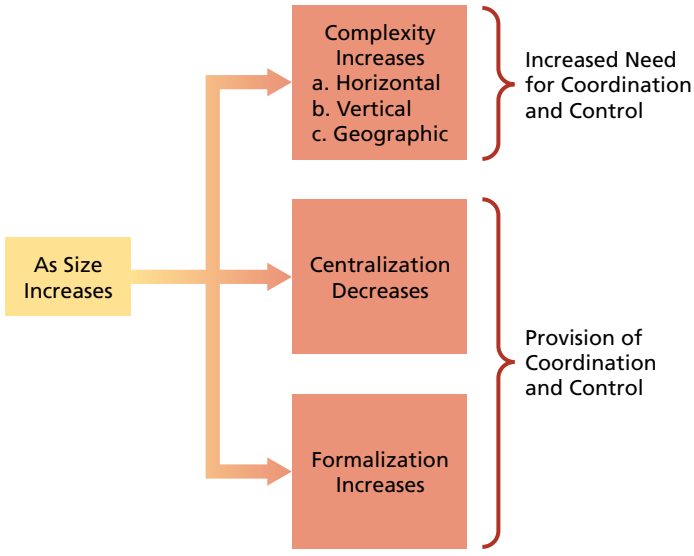


Exhibit 14.11
The relationship between size and structure.

Downsizing

A reduction in workforce size, popularly called *downsizing*, has been an organizational trend in recent years. Millions of jobs have disappeared as organizations seek to bolster efficiency and cut costs in an era of global competition, government deregulation, mergers, changing consumer preferences, and advancing technologies.[51] Downsizing has a number of implications for organizational structure.

Downsizing. The intentional reduction in workforce size with the goal of improving organizational efficiency or effectiveness.

Downsizing and Structure.

Downsizing might be formally defined as the intentional reduction in workforce size with the goal of improving organizational efficiency or effectiveness.[52] Notice that this definition does not imply that the organization's fortunes are necessarily in decline, although a shrinking market could motivate downsizing. In fact, Compaq Computer announced substantial downsizing during a year of record revenues and shipments in anticipation of the need to be more competitive in the future.[53]

How should downsizing affect organizational structure? It is tempting to "work backwards" through Exhibit 14.11 and simply say that as size *decreases* the firm should reduce its complexity, centralize, and become less formalized. In the case of a very simple downsizing, this logic might work. However, notice its limitations. First, some of the conditions listed above that often prompt downsizing are *new* conditions, not simply the opposite of the factors that led to organizational growth in the past. For example, deregulation has led to a completely new cast of competitors in the banking and telecommunications industries. Second, the logic of simply working backward through Exhibit 14.11 would assume that downsizing occurs proportionally in all parts of an organization. As you may know, this is not the case. White-collar managerial and staff jobs have been disproportionately reduced in the most recent downsizing, for reasons varying from high salaries to improvements in information technology. The upshot of all this is that a new downsized structure should not necessarily look like a mini version of the old structure.

Downsizing can be accomplished in a variety of ways. Although layoffs have been common, some organizations have relied on hiring freezes and natural attrition. In practice, downsizing is often accompanied by reducing horizontal or vertical complexity. Vertically, management levels have been removed to make organizations flatter. This has sometimes made sense when information technology enables the remaining managers to more effectively monitor the performance of their subordinates. Also, self-managed teams (Chapter 7) can act as substitutes for a level of management. Horizontally, functions can be combined (e.g., inspection and quality) or removed altogether by contracting them out.

Problems with Downsizing.

Many organizations have not done a good job of anticipating and managing the structural and human consequences of downsizing. For instance, when faced with serious decline, organizations have a decided tendency to become more mechanistic, particularly more formalized and centralized.[54] Rules are closely enforced, and higher levels of management take part in more day-to-day decisions. This can be useful to get the organization back on track, but it can also reduce flexibility just when it is needed. A good rule to follow is to avoid unnecessary formalization or centralization of matters that might have a negative impact on customers or clients. In other words, do not allow internal tightening up to damage external relationships.

One downsizing tactic has been to greatly reduce or even to eliminate whole departments of headquarters advisory staff. For instance, a human resource department might be downsized or the legal department eliminated. Many such staff units become bloated over the years, and they have been known to isolate top management from divisional concerns and to bureaucratize decision making. Thus, downsizing can provoke decentralization, giving line managers more power and speeding up decisions. On the other hand, some firms have eliminated such positions and

then turned around and hired consultants to do the same work. Contracting work out can be a viable strategy, but it is clear that some consulting arrangements have proven more expensive than the original in-house unit.[55] A good rule to follow is to think very carefully about the *work* that needs to be done and *who* should do it before downsizing.

A common structural downsizing error has been to flatten organizations by removing management levels without considering the implications for job design and workload. A glance at Exhibit 14.8 illustrates the crux of the problem: If only the management ranks are thinned, managers have larger spans below them and less support above them. This works well if decentralization is called for and if the people in the lower ranks are ready to assume greater decision-making responsibility. It does not work well if managers are overloaded with work or are incapable of delegating to subordinates. Advanced information technology and training can sometimes assist managers in coping with increased spans of control.

The increased spans that accompany flatter structures have also been implicated in some cases of ethical violation and corporate fraud. Less direct supervision coupled with unclear responsibilities mean that traditional guards against unethical activities may be lacking.

Thinking in advance about the structural aspects of downsizing is not a substitute for involving employees in downsizing plans. Surprising people with workforce cuts is very likely to result in low morale, reduced personal productivity, and continuing distrust of management. Some survivors of downsizing have even reported feeling guilty because they retained their jobs.[56]

In summary, downsizing has the potential to improve organizational effectiveness in certain circumstances, but its impact on structure and morale must be anticipated and managed. Research has shown that contrary to expectations, downsizing does not result in cost reductions in the long run or improvements in productivity. The negative outcomes of downsizing, however, are primarily due to poor implementation, such as a lack of supporting activities. When carefully and properly implemented, downsizing can have positive consequences.[57] For an example of responsible downsizing at a prominent discount/online brokerage firm, see "Applied Focus: *Responsible Downsizing at Charles Schwab & Company*."

A Footnote: Symptoms of Structural Problems

Let us conclude the chapter by considering some symptoms of structural problems in organizations.

- *Bad job design.* As we noted at several points, there is a reciprocal relationship between job design and organizational structure. Frequently, improper structural arrangements turn good jobs on paper into poor jobs in practice. A tall structure and narrow span of control in a research and development unit can reduce autonomy and turn exciting jobs into drudgery. An extremely large span of control can overload the most dedicated manager.
- *The right hand does not know what the left is doing.* If repeated examples of duplication of effort occur, or if parts of the organization work at cross-purposes, structure is suspect. One author gives the example of one division of a large organization laying off workers while another division was busy recruiting from the same labour pool![58] The general problem here is one of coordination and integration.
- *Persistent conflict between departments.* Managers are often inclined to attribute such conflicts to personality clashes between key personnel in the warring departments. Just as often, a failure of integration is the problem. One clue here is whether the conflict persists even when personnel changes occur.

APPLIED FOCUS Responsible Downsizing at Charles Schwab & Company

Over the past decade or so, Schwab & Company has had a lengthy record of product innovation. Perhaps its greatest innovation was one of the gutsiest moves of the 1990s: offering online trading in a bigger and better way than anyone else, even though it meant cutting commission rates by more than half. The result? In early 2000 Schwab could boast of having generated a better 10-year return for investors than Microsoft!

At the end of the second quarter of 2001, Schwab's commission revenues were off 57 percent from their peak 15 months earlier. Overall revenue was down 38 percent, losses totalled $19 million, and the stock had dropped 75 percent from its high. Something had to give. How did the company respond? It took five steps before finally cutting staff.

When Schwab first saw business begin to deteriorate the year before, it put projects on hold and cut back on such expenses as catered staff lunches, travel, and entertainment. Management went out of its way to explain to employees the short-term nature of these cuts.

As it became clear that more savings were needed, top executives all took pay cuts: 50 percent each for the company's two CEOs, 20 percent for executive vice presidents, 10 percent for senior vice presidents, and 5 percent for vice presidents.

It encouraged employees to take unused vacation and to take unpaid leaves of up to 20 days.

Management designated certain Fridays as voluntary days off without pay for employees who didn't have clients to deal with.

Only after the outlook darkened again, at the end of the first quarter of 2001, did the firm announce layoffs: 2,000 out of a workforce of 25,000. Even then the severance package included a $7,500 "hire-back" bonus for any employee rehired within 18 months. It also included between 500 and 1,000 stock options, cash payments to offset the increased costs of healthcare insurance for laid-off employees, and a full range of outplacement services. Further, everyone being laid off, nearly 5,000 people by the end of September 2001, was eligible for a $20,000 tuition voucher paid for by the founder himself. That could cost him as much as $10 million.

Today, however, the company is reinventing its business model. The plan is to have computers analyze customers' portfolios, compare them with a computer-generated list of Schwab-recommended stocks for that investor's risk profile, and then convey that message to the client. When the objective analysis is supplemented with research reports from partner Goldman Sachs, plus occasional access to a salaried investment specialist, the company feels that these steps will fill in the final gap in what will be a complete set of services for virtually every investor.

Schwab is practicing responsible restructuring. How? At the same time that it is demonstrating by its actions that it sees its employees as assets to be developed, it is developing business concept innovations that will allow it to generate new customers and new streams of revenue in order to grow its business.

Source: Excerpted from Cascio, W. F. (2002, August). Strategies for responsible restructuring. *Academy of Management Executive,* 80–91. Reprinted with permission.

- *Slow response times*. Ideally, labour is divided and coordinated to do business quickly. Delayed responses might be due to improper structure. Centralization might speed responses when a few decisions about a few products are required (dictating functional departmentation). Decentralization might speed responses when many decisions about many products are required (dictating product departmentation).
- *Decisions made with incomplete information*. In Chapter 11, we noted that managers generally acquire more than enough information to make decisions. After the fact, if we find that decisions have been made with incomplete information, and the information existed somewhere in the organization, structure could be at fault. It is clear that structural deficiencies were, in part, responsible for keeping top NASA administrators unaware of the mechanical problems that contributed to the explosion of the space shuttle *Challenger*.[59] This information was known to NASA personnel, but it did not move up the hierarchy properly.

- *A proliferation of committees.* Committees exist in all organizations, and they often serve as one of the more routine kinds of integrating mechanisms. However, when committee is piled on committee, or when task forces are being formed with great regularity, it is often a sign that the basic structure of the organization is being "patched up" because it does not work well.[60] A structural review might be in order, if too many people are spending too much time in committee meetings.

the manager's Notebook

Organizational Structure and Service Excellence

1. Service quality and excellence are, in large part, based on an organization's strategy and how predictable or stable its outputs are. For example, some organizations like McDonald's have stable and predictable outputs and require a high degree of standardization in order to ensure service excellence. Such a "Production Line" approach is characterized by the simplification of tasks, a clear division of labour, and little decision-making discretion on the part of employees. For other organizations, such as Ritz-Carlton Hotels, the outputs are changing and unpredictable, as the outputs required to satisfy each customer can vary. Thus, service excellence involves responding to individual customers' needs. This "empowerment approach" of service excellence requires that employees understand and contribute to the organization's performance, are provided with the power to make decisions, information about the organization's performance, and rewards based on organization performance. Each approach has implications for organizational structure. For example, the empowerment approach is best suited to organizations with unpredictable outcomes and requires fewer organizational levels or a flatter organizational structure with few levels between top management and front-line employees and smaller units, both of which improve the ease of communication. Less formalization and decentralization of decision making authority is also important in order to empower employees and enable them to make decisions and respond to customer's needs, as is the case for Ritz-Carlton. These characteristics are consistent with an organic organizational structure. Organizations with predictable outputs emphasize standardization and they tend to have taller organizational structures that emphasize standardization of work processes and outputs, direct supervision, and greater formalization and centralization, which is the case for McDonald's. High levels of standardization and formalization helps McDonald's maintain uniform quality standards. These characteristics are consistent with a mechanistic organizational structure.
2. The product and departmentalization organizational structures of Procter & Gamble and COM DEV made it difficult for them to provide quality service to their customers. As a result, they changed their structures by integrating the different product and department areas into teams that service particular customers. At Procter & Gamble, there are no longer seven different sales representatives with a specific product line. The so-called Seven Dwarfs have been replaced by teams that consist of salespeople and experts in market research, logistics, shelf management, and manufacturing. The teams work with retailers to design promotions for local shoppers. As well, retailers now deal with only one P&G employee who handles all truck schedules. Trucks now deliver only what is needed on the basis of the retailer's sales. This has saved retailers millions of dollars and improved P&G's relationship with them. As well, surveys have shown that P&G leads all other consumer-goods companies in helping retailers become more efficient. COM DEV changed their structure in order to improve the way they deal with customers. The traditional structure that was organized according to function has been split into a series of units. Each unit now serves a major customer and is responsible for developing business, designing new products, and getting them manufactured and delivered. While COM DEV knows that it will take time to fix its problems, they are starting to see some improvements.

Learning Objectives Checklist

1. Organizational structure is the manner in which an organization divides its labour into specific tasks and achieves coordination among these tasks. Labour is divided vertically and horizontally. Vertical division of labour concerns the apportioning of authority. Horizontal division of labour involves designing jobs and grouping them into departments.

2. While functional departmentation locates employees with similar skills in the same department, other forms of departmentation locate employees in accordance with product, geography, or customer requirements.

3. Basic methods of coordinating divided labour include direct supervision, standardization of work processes, standardization of outputs, standardization of skills, and mutual adjustment. Workers are permitted more discretion as coordination moves from direct supervision through mutual adjustment. More elaborate methods of coordination are aimed specifically at achieving integration across departments. These include liaison roles, task forces, teams, and integrators.

4. Traditional structural characteristics include span of control, flatness versus tallness, formalization, centralization, and complexity. Larger organizations tend to be more complex, more formal, and less centralized than smaller organizations.

5. The classical organizational theorists tended to favour mechanistic organizational structures (small spans, tall, formalized, and fairly centralized). The human relations theorists, having noted the flaws of bureaucracy, tended to favour organic structures (larger spans, flat, less formalized, and less centralized). However, there is no one best way to organize, and both mechanistic and organic structures have their places.

6. Many of the traditional organizational structures are being replaced by more flexible structures that break down external and internal boundaries. Network or virtual organizations and modular organizations are structures that break down or modify external barriers, and the boundaryless organization removes both internal and external barriers. As organizations grow in size they tend to become more complex (vertically, horizontally, geographically), more formalized, and less centralized.

7. Downsizing is the intentional reduction in workforce size with the goals of improving organizational efficiency or effectiveness. Sensible downsizing avoids mechanistic tendencies, retains necessary personnel, and respects good job design principles.

8. Symptoms of structural problems include poor job design, extreme duplication of effort, conflict between departments, slow responses, too many committees, and decisions made with incomplete information.

Discussion Questions

1. Discuss the division of labour in a college classroom. What methods are used to coordinate this divided labour? Do differences exist between very small and very large classes?

2. Is the departmentation in a small college essentially functional or product oriented? Defend your answer. (*Hint:* In what department will the historians find themselves? In what department will the groundskeepers find themselves?)

3. Which basic method(s) of coordination is (are) most likely to be found in a pure research laboratory? On a football team? In a supermarket?

4. What are the relative merits of mechanistic versus organic structures?

5. Discuss the logic behind the following statement: "We don't want to remove the differentiation that exists between sales and production. What we want to do is achieve integration."

6. As Spinelli Construction Company grew in size, its founder and president, Joe Spinelli, found that he was overloaded with decisions. What two basic structural changes should Spinelli make to rectify this situation without losing control of the company?

7. Describe a situation in which a narrow span of control might be appropriate and contrast it with a situation in which a broad span might be appropriate.

8. Make up a list of criteria that would define a good downsizing effort.

Integrative Discussion Questions

1. How do the structural characteristics of organizations influence leadership, communication, decision making, and power in organizations? Discuss the implications of each of the structural characteristics (i.e., span of control, organization levels, formalization, centralization, and complexity) for leadership behaviour, communication and decision making processes, and the distribution and use of power in organizations.
2. How do the new forms of organizational structure such as virtual, modular, and boundaryless organizations influence the culture of an organization? In other words, what is the relationship between these types of structures and an organization's culture? What is the relationship between these structures and the use and effectiveness of teams?

Experiential Exercise

Organizational Structure Preference Scale

In most organizations, there are differences of opinion and preferences as to how the organization should be structured and how people should conduct themselves. Following are a number of statements concerning these matters. The purpose of this survey is for you to learn about your own preferences about the structure of organizations. Please use the response scale below to indicate the extent to which you agree with each statement.

1 — Disagree strongly
2 — Disagree
3 — Neither agree nor disagree
4 — Agree
5 — Agree strongly

____ 1. I get most of my motivation to work from the job itself rather than from the rewards the company gives me for doing it.

____ 2. I respect my supervisors for what they know rather than for the fact that the company has put them in charge.

____ 3. I work best when things are exciting and filled with energy. I can feel the adrenalin rushing through me and I like it.

____ 4. I like it best if we can play things by ear. Going by the book means you do not have any imagination.

____ 5. People who seek security at work are boring. I don't go to work to plan my retirement.

____ 6. I believe that planning should focus on the short term. Long-term planning is unrealistic. I want to see the results of my plan.

____ 7. Don't give me a detailed job description. Just point me in the general direction and I will figure out what needs to be done.

____ 8. I don't expect to be introduced to new people. If I like their looks, I'll introduce myself.

____ 9. Goals should be set by everyone in the organization. I prefer to achieve my own goals rather than those of someone else.

____ 10. One of the things I prefer most about a job is that it be full of surprises.

____ 11. I like a job that is full of challenges.

____ 12. Organization charts are only needed by people who are already lost.

____ 13. Technology is constantly changing.

____ 14. Supervision and control should be face-to-face.

____ 15. If organizations focus on problem solving, the bottom line will take care of itself.

____ 16. I would never take a job which involved repetitive activities.

____ 17. Organizations are constantly in a state of change. I don't worry about how the players line up.

____ 18. Every decision I make is a new one. I don't look for precedents.

____ 19. When people talk about efficiency, I think they really don't want to do a good job.

____ 20. The people who know the most about the work should be put in charge.

Scoring and Interpretation

To calculate your organizational structure preference score, simply add up your responses to each of the 20 questions. Scores can range from 20 to 100. Your score on this survey indicates your preference for a mechanistic or organic organizational structure. A score of less than 50 indicates a preference for a mechanistic or formal organizational structure. Mechanistic structures tend to favour tallness, narrow spans, specialization, centralization, and formalization. Scores above 50 indicate a preference for a more organic or informal organizational structure. Organic structures tend to favour wider spans, fewer authority levels, less specialization, less formalization, and decentralization. Flexibility and informal communication are favoured over rigidity and the strict chain of command.

Source: Hoffman, R. & Ruemper, F. (1997). Exercise 20: Mechanistic or organic organizational design. In *Organizational behaviour: Canadian cases and exercises*, 3rd ed. Toronto: Captus Press, 298–299. Reprinted by permission of Captus Press Inc.

Case Incident

Conway Manufacturing

Conway Manufacturing is a large organization that manufactures machine tools that are used by workers in various industries. In recent years, sales of the company's products have begun to fall as a result of increasing competition. Customers have also begun to complain about the quality of Conway's products. In response, Conway decided to design some new high-quality products.

The Research and Development department was asked to develop some new designs for several of Conway's best-selling products. When the Engineering Department looked at the designs, they rejected them outright saying that they were not very good. Engineering then revised the designs and sent them to the Production Department. However, the Production Department responded by sending them back to the Engineering Department insisting that they would be impossible to produce. In the meantime, the Marketing Department had begun a campaign based on the material they had received from the Research and Development Department. One year later, Conway was still no closer to producing new products. In the meantime, more customers were complaining and threatening to find new suppliers, and the competition continued to take more and more of Conway's business.

1. Describe the structure of Conway Manufacturing. What are some of the problems that Conway is having, and is organizational structure a factor?
2. What would be the most effective structure to design new high-quality products in a short period of time? What are some methods for improving coordination?

Case Study

Expansion at Dimitri's Baked Goods Inc.

Dimitri's Baked Goods is a Windsor, Ontario–based bakery specializing in Macedonian pastries, "zelnik" and "vielnik," sweet and regular bread, and traditional Christmas and Easter cakes. The company employs four sales representatives, two secretaries, and a production staff that varies between 24 and 32 people. The firm also employs a small sales staff of three at its only retail outlet. The pastry, bread, and cakes are distributed all over Ontario and Western Canada. Distribution channels in Eastern Canada are in the process of being established.

Dimitri Leakos started this business in a small shop over 30 years ago. Leakos was not self-employed when he first settled in Canada from the Macedonian region of Greece. Macedonians are proud of their heritage, although they are not well recognized as a distinct ethnic group. The Canadian census did not even list Macedonians or the Macedonian language until 1981. This neglect is the result of the fact that historic Macedonia falls today within three Balkan countries: Bulgaria, Greece, and Yugoslavia. Throughout its recent history, Macedonia has been subjected to external and sometimes divisive control. The first significant immigration to Canada probably came as a result of uprisings against the Ottoman Empire in the early years of the 20th century. Both World Wars led to further waves of immigration. Most Macedonians live in the Toronto-Hamilton area, but a group from one Macedonian village settled in Windsor.

It was important to Leakos that he became established in a Macedonian community, and Windsor provided that for him. At first, he was an employee in a bakery owned by others in order to learn the business and to learn to read and write English. But he always had the need to control his own environment and was motivated more by this need than by any ideas of greater wealth.

Dimitri's Baked Goods began as a small bakery near the tunnel to Detroit. It was close to the downtown area of Windsor and in the heart of the local Macedonian area. He still maintains this original location as a retail sales outlet, although he has had to move his production and distribution to a suburban area where larger quarters were available. Leakos expanded his business to a 3,000 square metre facility on Dougall Avenue.

Dimitri's growth was based on two factors. The first was the growing demand from the Macedonian community for commercially produced versions of ethnic food, which were originally produced at home. While many first-generation Macedonians still do their own baking, the next generation is more inclined to buy it. The second factor was his success in broadening his market beyond its original Macedonian base. This is, by far, the most important cause of his growth. His enthusiastic marketing to non-Macedonians has been enormously successful.

Leakos is the stereotypical workaholic small businessperson. He is the owner, plant manager, production manager, sales supervisor, marketing manager, product development supervisor, and also one of the line workers at Dimitri. These duties force him to work between 12 and 17

hours a day, 7 days a week, but he allows himself to take three-week long vacations spread throughout the year. He is a moderate risk taker who does not undertake new ventures without a great deal of research to prove to himself it will be successful. Once he starts a task, he remains committed to it until it is accomplished. He prefers tasks that provide immediate feedback to those with only long-term prospects. For example, when any of his sophisticated machinery breaks down and engineers are flown in from the manufacturers in Europe, he will spend as much time as possible with them in order to learn how to perform the repairs.

Decision making is extremely centralized at Dimitri's Baked Goods. Leakos has total control over his business. He has been running it this way for three decades with great success and, until recently, he has seen no reason to change. He feels centralization makes his business more flexible because he can act without delay when problems arise.

The structure at Dimitri's is quite informal. Leakos deals with all his employees on an individual basis. The production roles in the bakery vary at different times. Workers are not forced to specialize in one skill. Their work might rotate among packaging, shipping, and maintenance. Only the bakers are somewhat specialized, but they too help to get the goods delivered. The hierarchy is extremely flat and has very little horizontal differentiation. There is a production department, a sales department, two office workers, plus the retail outlet. Leakos handles all the staff functions of personnel, planning, and budgeting. Every employee at Dimitri reports to Leakos. Dimitri has followed this functional structure since the business was first developed.

Because Leakos is the only supervisor at Dimitri's, his practices have defined the supervisory style. He seems to practise an employee-oriented leadership. He helps his people with personal problems, treats them as equals, and avoids punitive actions. Leakos seldom refuses to compromise, nor does he insist on things be done his way. His style is unobtrusive, leading by example rather than by threats. Everyone admires his personal effort on the production floor every day. He is more concerned with results than methods.

Leakos's supervisory methods have developed very high employee morale. As a result of this, there are few grievances and a low turnover rate. Many employees have been with the company for 10 to 15 years. His main problem comes during peak seasons such as Christmas and Easter, when production cannot keep up with demand. At those times, Leakos is forced to hire seasonal staff, and many employees have to work overtime and weekends. Then, Leakos becomes more authoritarian and grievances increase. These holiday work schedules conflict with family and social festivities. Because of his excellent personal relationships with his employees, he is able to keep turnover low, even though these problems arise.

Motivation is often a problem in assembly-line work, and may result in high absenteeism and employee turnover. Leakos uses a strategy of job rotation and job enlargement. This strategy grew naturally from the expansion of the business over the years rather than from any deliberate policy on his part. He has avoided job specialization, only because it was not natural for him to have it. Leakos also understands the need for rewarding desirable behaviour. At Christmas and Easter, when he needs employees to come in on weekends, he rewards them with praise, free coffee and doughnuts, packages of pastry, and legs of lamb to take home to their families. He also has a Christmas bonus program, which he uses to reward those who are willing to work overtime. He schedules a one-week vacation period after the peak Christmas and Easter seasons and again during the first week in August. Leakos is fairly generous with pay and benefits. The production employees are paid about twice the legal minimum wage and get time-and-a-half for overtime. They have all statutory holidays off or are paid overtime for working them. There are three weeks of paid vacation. He provides personal time off with pay for family emergencies and illnesses and is also understanding of the needs of his workers to fulfill family duties. Leakos is very generous when his employees have a wedding or christening in the family.

Almost all the workers at Dimitri's are from the Macedonian community in Windsor and speak Macedonian. Most of them are housewives earning a second income. They are unskilled and have little formal education. At Dimitri's, employees find themselves in a comfortable environment, where they can speak their own language and affiliate with others with similar cultural background and interests. Since the Macedonian community in Windsor is well organized, the employees know each other from outside and see each other on their own time. They all know about upcoming weddings and planned outings to the Boufsko Cello, the Macedonian community park on Lake Erie. Whenever a new position becomes available, the employees are encouraged to spread the word to others in their circle who might be interested.

Sales are now escalating so quickly that production facilities are unable to keep up with demand. Leakos has had to delay his plans to expand into the United States market even though he knows his products are popular in Detroit. The customs officers at the Windsor/Detroit Tunnel tell him they see his cakes and pastry every day (bought in Windsor and carried over the border). Some of his pastries are served in Greek restaurants in downtown Detroit. The Free Trade Agreement with the United States has led him to think that now is the time for a major marketing move into the United States.

Source: Hoffman, R. & Ruemper, F. *Organizational behaviour: Canadian cases and exercises*, 3rd ed. Toronto: Captus Press. Based on original research by Steven Zullo and John Tannis.

1. Draw the existing organization chart for Dimitri's Baked Goods Inc. Describe the structure of the organization using concepts such as span of control, formalization, centralization, and complexity.

2. What form of departmentation does the company rely on? Discuss the advantages and disadvantages of this form of departmentation with reference to the issues mentioned in the case. Consider the appropriateness of other forms of departmentation for the company. What form would be most effective?

3. Use the concept and methods of coordination to analyze the functioning of the organization and the implications of this for expansion.

4. Is the company ready to undertake an expansion? Why or why not?
5. Suggest some alternative organizational structures that might be needed for a successful expansion. Do these alternatives have any potential problems?
6. If the company decides to expand, how will this affect structural characteristics, such as span of control, formalization, centralization, and complexity?
7. How do you think the company should respond to the pressures to expand?